



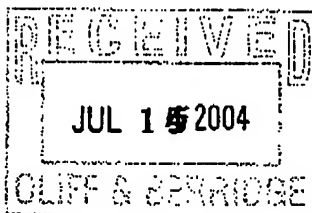
## UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,651	12/21/2001	Yutaka Kaneda	111426	6403

25944 7590 07/13/2004

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EXAMINER

PATEL, ISHWARBHAI B

ART UNIT PAPER NUMBER

2827

DATE MAILED: 07/13/2004

FINAL REJECTION/  
NOTICE OF APPEAL

Please find below and/or attached an Office communication concerning this application or proceeding.

~~DOCKETED~~

By LXV on 7/15 2004  
 and  
 By MR on 7/15 2004  
 Oliff & Berridge

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**Office Action Summary**

Application No.

10/023,651

Applicant(s)

KANEDA, YUTAKA

Examiner

Ishwar (I. B.) Patel

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 10-17 is/are pending in the application.
- 4a) Of the above claim(s) 1,6,7,10,11 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-5,12-14,16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-5, 13 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by F. Hugle, US Patent No. 3,440,027.

Regarding claim 2, Hugle discloses a flexible wiring board comprising a wiring pattern formed of a desired metal on an insulating substrate (wire 5 on flexible insulating layer 2, see figure 1 and 2, column 1, line 70 to column 2, line 30), and

a reinforcing guide pattern (metal strip 7, figure 1) on the insulating substrate, wherein the reinforcing guide pattern is of the same metal as that of the wiring pattern (column 1, line 52-55) and wherein the reinforcing guide pattern has guide holes for positioning (indexing holes 6, see figure 1, line 70 to column 2, line 30).

Regarding claim 3, Hugle further discloses the guide pattern has a projecting reinforcing guide having a thickness greater than that of the wiring pattern (metal strip 7 is thicker than the wiring 5, see figure 2).

Art Unit: 2841

Regarding claim 4 and 5, Hugle further discloses the guide pattern formed as a frame shape surrounding the periphery of the wiring pattern, (metal strip 7 on the periphery of the wiring 5, see figure 1).

Regarding claim 13, Hugle further discloses the wiring pattern has flat electrodes, see figure 3, end of wiring used as terminal is flat.

Regarding claim 17, Hugle further discloses the reinforcing guide pattern is integrally formed with the wiring pattern on the insulating substrate.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hugle, as applied to claims 2-5, 13 and 17 above, and further in view of Galli et al., US Patent No. 3,781,596, hereafter, Galli.

Regarding claim 12, the applicant is claiming wiring pattern with projecting electrodes.

Art Unit: 2841

Hugle fails to disclose the projecting electrodes.

Galli discloses wiring patterns (12) with projecting electrodes (13), see figure 1a and 1b, column 2, line 5-7, and further discloses that the conductor patterns 12 may be of the same or different conductor material as the pads 13, column 4, line 17-18, and thickness of the pad / projection is determined by bonding requirements, stand off clearance and pad forming methods, column 4, line 29-31.

A person of ordinary skill in the art will select the projection depending upon the specific application to have desired stand off clearance.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the wiring pattern of Hugle with projecting electrodes, as taught by Galli, in order to have desired stand off clearance.

3. Claims 14 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hugle and Galli as applied to claim 12 above, and further in view of Nogawa et al., US Patent No. 4,316,320, hereafter, Nogawa.

Regarding claim 14, the applicant is claiming a first wiring pattern formed on one side of the insulating substrate and a second wiring pattern formed on an opposite side of the insulating substrate.

Hugle fails to disclose the wiring pattern on both the sides of the insulating substrate.

Nogawa discloses a flexible wiring board with wiring pattern on both the sides of the insulating substrate with flat electrodes, see figure 1, column 2, line 49-60.

Further, wiring on both the sides of the substrate is used in the art for increasing the component density on the board or connecting component on one side and the wiring with electrodes on the other side used for subsequent connection of the board to the other board in the system, depending upon the system requirements.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the combination of Hugle and Galli with a second wiring pattern with electrodes formed on an opposite side of the insulating substrate, as taught by Nogawa, in order to have subsequent connection of the board with other circuit board depending upon the system requirement.

Regarding claim 16, the combination of Hugle, Galli and Nogawa further disclose the second wiring pattern having flat pattern, as applied to claim 14 above.

### ***Response to Arguments***

4. Applicant's arguments filed April 28, 2004 have been fully considered but they are not persuasive. Applicant argues that the present invention claims the flexible wiring board having wiring pattern and reinforcing guide pattern, wherein the guide pattern has guide holes **for positioning**. The guide hole will help in positioning the flexible wiring board to another wiring board. The applied prior art of Hugle teaches **indexing holes** 6 to facilitate registration from one etching operation to the next. Nowhere does Hugle

Art Unit: 2841

teach or suggest using guide holes to precisely position the wiring board whereby a multilayer wiring board can be produced or in other words, nowhere does Hugle teach or suggest a guide pattern that has guide holes for positioning, as recited in claim 2.

These arguments do not found persuasive. First, the applied prior art of Hugle, as disclosed on column 2, line 23-23 and as pointed out by the applicant, discloses indexing holes to facilitate registration. Indexing is nothing but positioning. Second, the prior art of Hugle discloses the structure. The intended use of the structure does not differentiate the claimed structure from the prior art structure. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (571) 272 1933. The examiner can normally be reached on M-F (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272 1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2841

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

I B Patel  
Examiner  
GAU: 2827  
July 8, 2004



KAMAND CUNEO  
SUPERVISORY PATENT EXAMINER  
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